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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,592	10/29/2003	Brian Harold Kelley	030620	8304

23696 7590 09/29/2005

Qualcomm, NC
5775 Morehouse Drive
San Diego, CA 92121

EXAMINER	
TREAT, WILLIAM M	
ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/697,592	KELLEY ET AL.	
	Examiner	Art Unit	
	William M. Treat	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-24 are presented for examination.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Each of applicants' independent claims recite the limitation, "wherein the privileged function is executed as part of the same execution thread as the application." Yet, in Figure 3 and its related description in the specification applicants describe a system which switches to the privileged stack and privileged registers while, seemingly, saving the non-privileged thread's context. In Patent No. 6,175,916 it states in the background of the invention: "Generally, an execution thread comprises a sequence of processor instructions that execute in a single processor context. The particular elements of a thread's context vary depending on the microprocessor being used. For purposes of the discussion herein, however, a thread's context always includes its private memory stack or stacks. Therefore, by definition, a single thread always uses the same private memory stack. Any time the processor context changes to a different memory stack, the processor is said to be executing a different thread." As best the examiner can determine, the applicants' system switches from executing the user thread, to executing the privileged thread, and back to executing the user thread. This does not seem to be a situation which one of ordinary skill would recognize as the

privileged function being executed as a part of the user thread; rather, the privileged function seems to operate as a separate thread.

5. Dependent claims 6 and 23 seem inconsistent with their independent claims in that they are claiming a step for executing the privileged thread while the independent claim says everything is part of the user thread.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 8-11, 13-16, 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ginsberg et al. (Patent No. 6,175,916).

8. Ginsberg taught the invention of exemplary claim 1 including a method for providing transitions between operating modes of a device, wherein the operating modes comprise a privileged mode and a non-privileged mode, and the method comprising: executing an application in the non-privileged mode; generating an interrupt to request the services of a privileged function; and transitioning to the privileged mode to execute the privileged function, wherein the privileged function is executed as part of the same thread of execution as the application (col. 5, lines 1-23; col. 6, line 65 through col. 7, line 20; and col. 8, line 50 through col. 10, line 17).

9. As to claim 2, Ginsberg taught the method of claim 1, wherein the interrupt is a software interrupt (col. 7, line 49 through col. 8, line 17).

10. As to claims 3 and 4, Ginsberg taught the method of claim 1, further comprising validating that the privileged function is a trusted function and the method of claim 1, further comprising validating that the execution of the privileged function will not exceed access rights associated with the application, to the extent claimed (col. 8, line 50 through col. 9, line 24).

11. As to claim 5, Ginsberg taught the method of claim 1, further comprising transitioning to the non-privileged mode to execute the application when the execution of the privileged function is completed (col. 10, lines 1-14).

12. As to claims 8-11, 13-16, and 18-22, they fail to teach or define over rejected claims 1-5 in any substantive way.

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claims 7, 12, 17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginsberg et al. (Patent No. 6,175,916) in view of applicant's disclosure.

16. Ginsberg taught the inventions of independent claims 1, 8, 13, and 18 from which claims 7, 12, 17, and 24 depend. He did not specifically teach his invention as part of the software for a wireless device. However, software for wireless devices with the problem Ginsberg solved existed at the time of applicants' invention (see applicants' Field of Invention and Description of the Related Art). Therefore, it would be obvious to one of ordinary skill in the art to apply Ginsberg's invention to the software of wireless devices to solve the same problem.

17. Any inquiry concerning this communication should be directed to William M. Treat at telephone number (571) 272-4175. The examiner works at home on Wednesdays but may normally be reached on Wednesdays by leaving a voice message using his office phone number. The examiner also works a flexible schedule but may normally be reached in the afternoon and evening on three of the four remaining weekdays.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WILLIAM M. TREAT
PRIMARY EXAMINER